

CLAIMS

1. A rubber element for a compression elastic coupling including a drive flange provided with a plurality of drive ribs circumferentially arranged at angular intervals and a driven flange coaxial with and spaced from the drive flange and provided with a plurality of driven ribs circumferentially arranged at angular intervals, the rubber element being adapted to be interposed between the drive rib and the driven rib so as to be compressed when power is transmitted, comprising:

a pair of mounting plates attached respectively to a pair of rib surfaces of the drive rib and the driven rib which are spaced and opposed to each other; and

an elastic member made of rubber, the elastic member being held between the pair of mounting plates which are spaced and opposed to each other, the elastic member being bonded to joining surfaces of the pair of mounting plates;

wherein the pair of mounting plates are respectively provided with protrusions protruding toward each other in central areas of the joining surfaces or lateral areas of the joining surfaces including the central areas and extending in a direction parallel to an axis about which the flanges rotate.

2. The rubber element for a compression elastic coupling according to claim 1, wherein:

the drive flange and the driven flange are fixedly mounted, respectively, on a drive shaft and a driven shaft which are coaxially extended and axially spaced apart from each other, and

each of the pair of mounting plates is provided with an attaching lug adapted to be fastened to the drive rib or the driven rib with a bolt, the attaching lug being bent and extending away from the joining surface.

3. The rubber element for a compression elastic coupling according to claim 2, wherein the attaching lug extends perpendicularly to the joining surface of the mounting plate.

4. The rubber element for a compression elastic coupling according to any one of claims 1 to 3, wherein the

protrusion is circular in a plane.

5. The rubber element for a compression elastic coupling according to claim 4, wherein a height of the protrusion decreases gradually at a peripheral part of the protrusion.

6. The rubber element for a compression elastic coupling according to claim 4 or 5, wherein the protrusion has a shape substantially resembling a semisphere.

7. The rubber element for a compression elastic coupling according to claim 4 or 5, wherein the protrusion has a shape substantially resembling a truncated circular cone.

8. The rubber element for a compression elastic coupling according to any one of claims 1 to 3, wherein the protrusion extends over an overall width of the mounting plate in a direction parallel to the axis about which the flanges rotate.

9. The rubber element for a compression elastic coupling according to any one of claims 1 to 8, wherein a peripheral step is formed in the mounting plate by forming an overall peripheral part of the mounting plate in a reduced thickness.

10. The rubber element for a compression elastic coupling according to any one of claims 1 to 9, wherein the elastic member includes a circumferential outer surface which is exposed between the pair of mounting plates, the circumferential outer surface being formed to be bulged slightly outward near the pair of mounting plates and slightly depressed at a middle part of the circumferential outer surface.

11. The rubber element for a compression elastic coupling according to any one of claims 1 to 10, wherein a threaded hole in which a fixing bolt is to be screwed is formed so as to extend through a central part of an outer surface of the mounting plate into the protrusion.

12. The rubber element for a compression elastic coupling according to claim 11, wherein the threaded hole has a flat bottom.

13. The rubber element for a compression elastic

coupling according to any one of claims 1 to 12, wherein the mounting plate has a substantially rectangular shape and the elastic member has a shape substantially resembling a rectangular solid.

14. The rubber element for a compression elastic coupling according to claim 13, wherein the mounting plate has a shape substantially resembling a square.

15. The rubber element for a compression elastic coupling according to any one of claims 1 to 14, wherein the mounting plate is made of a metal.

16. The rubber element for a compression elastic coupling according to any one of claims 1 to 15, wherein the elastic member is bonded to the joining surfaces of the mounting plates by curing.

17. A compression elastic coupling comprising:

- a drive flange provided with a plurality of drive ribs circumferentially arranged at angular intervals;

- a driven flange coaxial with and spaced from the drive flange, the driven flange being provided with a plurality of driven ribs circumferentially arranged at angular intervals; and

- a plurality of rubber elements as defined in any one of claims 1 to 16 which are respectively interposed between the drive ribs and the driven ribs.